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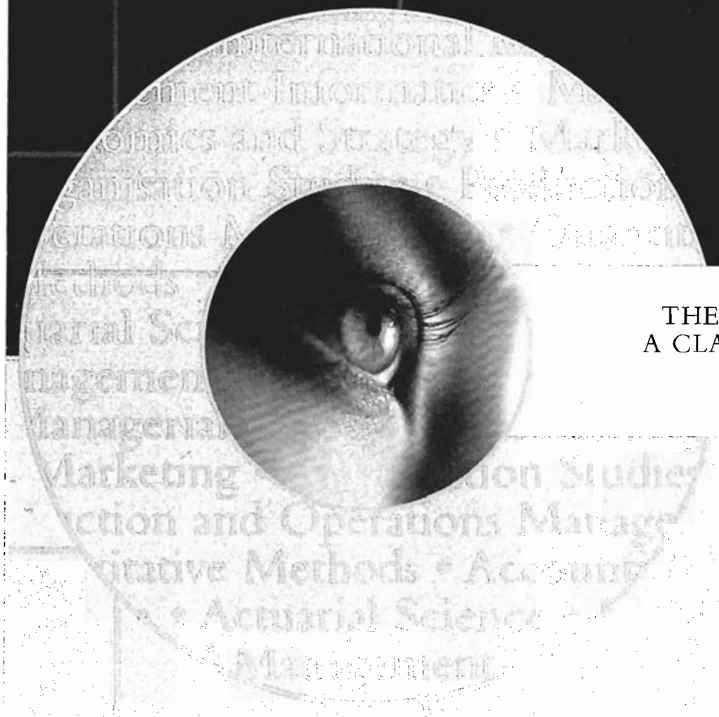

RESEARCH REPORT

THE SEARCH FOR CORPORATE ENTREPRENEURSHIP: A CLARIFICATION OF THE CONCEPT AND ITS MEASURES

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The search for corporate entrepreneurship: a clarification of the concept and its measures

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1. Introduction

Entrepreneurship is considered to be a vital component in the process of economic growth and development for various reasons. It is a mechanism by which society converts technological information into products and services (Shane & Venkataraman, 2000). This type of entrepreneurially driven innovation in products or services and processes is a crucial engine driving the change process in a capitalist society (Schumpeter, 1934). Entrepreneurship discovers and mitigates not only technological, but also temporal and spatial inefficiencies in an economy (Shane & Venkataraman, 2000). The above makes it clear that the study of entrepreneurship is an essential component of the study of business.

Entrepreneurship has long been seen as a synonym for establishing new small firms as a suitable vehicle for entrepreneurial endeavor (Rothwell & Zegveld, 1982). Later on, a parallel strand in literature was developed stressing the importance of entrepreneurship for and within existing corporations. A widely accepted label for this branch in entrepreneurship theory aiming at bewildering existing companies with an entrepreneurial spirit is corporate entrepreneurship. Factors that have stimulated the emergence of corporate entrepreneurship as a field of research and practice are related to perceived weaknesses of the traditional methods of corporate management (e.g. highly regulated, strict hierarchy, short term focus, premeditation with cost minimization and cutting slack, narrowly defined jobs, ...). These traditional management methods can lead companies onto a bureaucratic or administrative pathway, often ignoring the need for change and smoldering innovative initiatives. This type of management is expected to be self-reinforcing since disappointed entrepreneurial-minded employees and executives tend to leave a company managed by strict bureaucratic rules and regulations (Hayes & Abernathy, 1980; Kanter, 1985; Kuratko et al., 1990).

Corporate entrepreneurship is thought of as rejuvenating and revitalizing existing companies. It is brought into practice as a tool for business development, revenue growth, profitability enhancement and pioneering the development of new products, services and processes (Kuratko et al., 1990; Lumpkin & Dess, 1996; Miles & Covin, 2002; Zahra, 1991; Zahra & Covin, 1995; Zahra et al., 1999b).

It will not come as a surprise that the expectations for corporate entrepreneurship are high. Yet, although some remarkable successes in creating new revenue and profit growth through corporate entrepreneurship have been achieved, the number of failures still appears to surpass the number of successes (Sykes, 1986). In fact, corporate entrepreneurship can be risky or even detrimental to a firm's short-term financial performance (Zahra & Covin, 1995). The corresponding responsibility of the field of research in entrepreneurship and corporate entrepreneurship should not be underestimated. As Miles and Covin (2002; p.22) note: "Solid theoretical frameworks and empirically grounded and managerially useful prescriptions involving corporate entrepreneurship have not progressed as quickly as enthusiasm for the practice". Research has only allowed deriving a large body of very general and often contradictory principles for corporate entrepreneurship (Dess et al., 1999; Sykes, 1986). Thus, current knowledge regarding the role, risks and effective conduct of corporate entrepreneurship remains limited (Miles & Covin, 2002).

A major source for these conflicting results can be found in the problem of defining corporate entrepreneurship. Corporate entrepreneurship is generally considered to be ill defined (Stopford & Baden-Fuller, 1994). Authors may use many terms to refer to different aspects of corporate entrepreneurship (Zahra, 1991). Authors have not been consistent in the use of the labels they attach to the phenomenon they purport to study, using labels such as entrepreneurship, corporate entrepreneurship, intrapreneurship and entrepreneurial orientation. Despite the ubiquity of labels used many have turned to very similar measures to capture the phenomenon (Zahra et al., 1999a). This gives rise to a misfit between the labeled phenomenon and its actual operationalization. Thus, although the interest in corporate entrepreneurship is high, our knowledge of the concept remains limited and fragmented (Miles & Covin, 2002).

The origin of the problem of defining corporate entrepreneurship can be attributed to the lack of a generally accepted definition of its underlying construct, i.e. entrepreneurship. The emphasis on corporate entrepreneurship serves only to heighten the complexity (Carrier, 1996). Entrepreneurship is seen as a broad label under which a hodgepodge of research is housed (Shane & Venkataraman, 2000). The problem of defining "entrepreneur" and establishing the boundaries of entrepreneurship research has still not been solved (Bruyat & Julien, 2001; Ucbasaran et al., 2001). This entails the danger of researchers speaking after one another, rather than to one another. The term 'entrepreneurship' has been used to define a wide range of activities, such as creating, founding, adapting, and managing a venture (Cunningham & Lischeron, 1991; Hoy & Verser, 1994). The existence of the many different views about entrepreneurship became particularly apparent in the study of Gartner (1990). In a first phase of a policy Delphi he asked 283 respondents (academics, business leaders and politicians) to define entrepreneurship. In the answers of the 44 respondents no less than 90 different attributes of entrepreneurship could be discerned. Examples of such attributes include the creation of a new business, bringing resources to bear on a perceived opportunity, purchasing an existing business, destroying the status quo, refining a creative idea and adapting it to a market opportunity. Because of the lack of a conceptual framework that explains and predicts a set of empirical phenomena not explained by conceptual frameworks already in existence in other, related fields of research, the distinctive contribution of the entrepreneurship field is difficult to identify (Shane & Venkataraman, 2000). Hence, the field's legitimacy can be seriously threatened.

By now it is clear that a generally accepted definition of corporate entrepreneurship cannot be imposed or even assumed. In this respect, the search for an appropriate basis for understanding and describing the phenomenon of corporate entrepreneurship creates a challenging problem for entrepreneurship researchers. This paper aims at creating such a basis by means of a clarification of the concept of corporate entrepreneurship and its measures. As explained by Hoy and Verser (1994), bridging a definitional gap can be attempted in two distinct ways: (1) operationalizing the terms used in empirical studies and (2) defining a term by describing its domain. Both approaches will be discussed in this paper in reverse order. However, the corporate entrepreneurship definition dilemma cannot be solved without first exploring its "source" field of research, i.e. entrepreneurship. The remaining of this paper thus encompasses three parts. First, we explore the field of entrepreneurship. Next, we aim to define corporate entrepreneurship by describing its domain. And finally, we take a close look at the operationalization of the corporate entrepreneurship construct in various empirical studies.

2. Entrepreneurship

Good science has to begin with good definitions (Bygrave & Hofer, 1991). But no definition is good in itself. It is a construct at the service of research questions that are of interest to a scientific community at a given moment in time. In order for a definition to be labeled as good, two conditions have to be fulfilled. First of all the definition must allow to build theories and carry out effective empirical research in order to enhance the understanding of the phenomenon studied and to improve the quality of the predictive findings. Second, researchers in the field must share the definition so as to promote the accumulation of knowledge (Bruyat & Julien, 2001). Identifying the research questions and topics of interest to the field requires an exploration of the entrepreneurship construct and how it has been studied.

2.1. The entrepreneurship construct

2.1.1. The trait approach

A first approach containing a substantial body of research in the entrepreneurship field has focused on the person of the entrepreneur. The research question of interest here is mainly: "why do certain individuals start firms when others, under similar conditions, do not?" (Gartner, 1989). However, many authors have answered this 'why' question with 'who': the reason why Z started a venture is because Z possesses a number of inner qualities, characteristics or traits. This approach is known as the "trait approach". In this approach researchers try to identify traits and characteristics of individuals in order to differentiate entrepreneurs from non-entrepreneurs. The entrepreneur's traits are seen as the key to explain the entrepreneurship phenomenon (Gartner, 1989). The primary level of analysis is therefore the individual. Specific entrepreneurial traits often mentioned in literature are the locus of control, the need for achievement, risk taking, the personal value system and age (Begley & Boyd, 1987; Hornaday and Aboud, 1971; Gartner, 1989; Lee & Tsang, 2001; Littunen, 2000). Two schools of thought as distinguished by Cunningham and Lischeron (1991) belong to the trait approach: the great person school and the psychological characteristics school. The great person school is built around snippets of the life story of inspirational individuals such as Henry Ford, J.D. Rockefeller or Enzo Ferrari. Central to this line of thinking is the intuitive ability of "great" individuals to recognize an opportunity and make the appropriate decision, suggesting that they are endowed with certain qualities or traits. The great person school as such is an extreme case of the psychological characteristics school. The latter is but a different label for the trait approach described by Gartner (1989).

Despite the attention this approach has received in research and literature, the trait approach still seems to be unable to capture the entrepreneurship phenomenon to the full extent. The flaws in this approach are well documented by Gartner (1989). Above all, the trait approach remains one-dimensional, focusing solely on the person of the entrepreneur. Moreover, many authors use very vague definitions of the entrepreneur in their research and few studies use the same definition. This lack of a shared definition seriously threatens the accumulation of knowledge in this area of research. In addition, the research findings of this approach provide a psychological profile so full of traits and characteristics that the entrepreneur would have to be a sort of generic "everyman" (Gartner, 1989). In spite of these flaws the trait approach still remains a very popular view as even the most recent issues of scientific journals contain articles belonging to this approach (e.g. Ardichvili & Gasparishvili, 2003).

2.1.2. From traits to behavior

The weak points of the trait approach have lead entrepreneurship researchers to a second approach. In this so-called behavioral approach entrepreneurship is seen as the process of creating new organizations (Gartner, 1989). This approach takes the organization being created ('the project') as the primary level of analysis. The objective is not to find out 'who is the entrepreneur', but to gain understanding as to why the entrepreneurial achievement has come into existence. The behavioral view stresses the contextual nature of the creating process. The entrepreneurial project is therefore seen as an outcome of a complex process with many influences. The role of the individual boils down to a series of actions or behavior undertaken to enable the creation of the project. Personal characteristics are considered ancillary to the behavior.

By adopting a behavioral approach to entrepreneurship, "the dancer is not artificially separated from the dance" (Gartner, 1989: p. 64).

The behavioral approach increases the complexity of the entrepreneurship phenomenon compared to the trait approach. Within the behavioral view, entrepreneurship is generally accepted as a multidimensional construct, as the nexus of several dimensions or process components that can be distinguished, but not separated from each other. However, this common ground within the behavioral approach does not eradicate all differences with regard to the conceptualizing of the entrepreneurship phenomenon. Two (related) main points of differing views remain: (1) defining entrepreneurship and (2) the number of process components constituting the entrepreneurship construct.

Even within the behavioral approach, reaching agreement on a definition of entrepreneurship remains problematic. For the purpose of illustration and comparison, a few entrepreneurship definitions are brought together in Table 1. We want to stress that all definitions of Table 1 belong to the behavioral view on entrepreneurship and that they all explicitly use the label 'entrepreneurship'. The definitions are ordered by year.

First of all, there seems to be considerable variation as to the locus of entrepreneurship. Locus refers to where entrepreneurship is taking place. Kanter (1985), Krueger and Brazeal (1994), Schuler (1986), Shane and Venkataraman (2000) and Stevenson and Jarillo (1990) either leave the locus aspect open for interpretation or explicitly state that entrepreneurship can take place in both newly forming and existing businesses. Gartner (1985; 1989), Kouriloff (2000) and Low (2001) on the other hand explicitly restrain entrepreneurship to a process taking shape in new organizations. Miller (1983) and Jones and Butler (1992) connect entrepreneurship with actions of existing firms.

Also the object of pursuit in the process of entrepreneurship varies considerably. For Gartner (1985; 1989), Kouriloff (2000) and Low (2001) the formation of a new organization or venture is the ultimate aim of entrepreneurship. Entrepreneurship ends once the formation process is finished. In the view of Gartner (1989) innovation is not necessarily an issue since relating entrepreneurship to innovation only serves to increase the ambiguity in what already is a definitional dilemma. Other authors take an opposite stand and explicitly relate entrepreneurship to innovation (Miller, 1983; Kanter, 1985; Schuler, 1986). A last group of entrepreneurship researchers choose to avoid this discussion. They put forward that entrepreneurship concerns the noticing and pursuing of opportunities (Jones & Butler (1992); Krueger & Brazeal (1994); Shane & Venkataraman (2000); Stevenson & Jarillo (1990)) As already mentioned, all definitions summarized in Table 1 use the label 'entrepreneurship' and belong to the behavioral approach of entrepreneurship. However, as we hope to have illustrated, the views about what constitutes entrepreneurship vary considerably. So the behavioral approach does not bring unanimity among researchers about what constitutes entrepreneurship. In the absence of a universally accepted definition, it is the responsibility of every author to state clearly what is meant when the term entrepreneurship is used (Bygrave & Hofer, 1991).

As discussed earlier, a condition that must be fulfilled in order to obtain a good definition of entrepreneurship is that researchers in the field must share this definition so as to promote the accumulation of knowledge (Bruyat & Julien, 2001). It is clear that we are bound to conclude that this condition - even within the behavioral approach - is not fulfilled. Perhaps, as suggested by Hoy and Verser (1994), describing the entrepreneurship domain by mapping its dimensions or process components can lead entrepreneurship researchers to some degree of consensus. In the mean time, in order to minimize confusion, authors should be careful and more explicitly state that the entrepreneurship definition given is the definition *they* will use and not necessarily *the* entrepreneurship definition.

Table 1. Entrepreneurship: definitions.

Source	Definition of entrepreneurship
Miller (1983)	A firm's actions relating to product-market and technological innovation
Kanter (1985)	The creation of new combinations
Gartner (1985; 1989)	The process of new venture creation; the process by which new organizations come into existence
Schuler (1986)	The practice of creating or innovating new products or services within existing businesses or within newly forming businesses
Stevenson & Jarillo (1990)	The process by which individuals – either on their own or inside organizations – pursue opportunities without regard to the resources they currently control
Jones & Butler (1992)	The process by which firms notice opportunities and act to creatively organize transactions between factors of production so as to create surplus value
Krueger & Brazeal (1994)	The pursuit of an opportunity irrespective of existing resources
Kouriloff (2000)	The process of creating a new venture
Shane & Venkataraman (2000)	The discovery, creation and exploitation (including by whom and with what consequences) of opportunities to bring into existence future goods and services
Low (2001)	The creation of a new enterprise

2.1.3. *Towards a framework for the entrepreneurship field?*

The number of components

Within the behavioral view, entrepreneurship is generally accepted as a multidimensional construct, as a nexus of multiple components. The study of entrepreneurship then requires taking into account the various components. However, there seems to be no agreement as to the number of components involved. The definitional problem discussed before undoubtedly spurs the discussion about the components. Table 2 contains a number of sources and the entrepreneurship process components they propose.

As Table 2 shows, entrepreneurship researchers have different views about the number and the essence of the process components constituting entrepreneurship. Authors' views with regard to the essence or description of the different components differ. For instance, Bruyat and Julien (2001) acknowledge that any organized living body can act as an entrepreneur. Gartner (1985) and Bygrave and Hofer (1991) on the other hand only recognize the individual entrepreneur. The varying views on the essence of the 'individual' component are equally applicable to the other process components.

Furthermore, as far as the number of components is concerned, there seems to be a minimum and a maximum approach. Authors as Bygrave and Hofer (1991), Bruyat and Julien (2001) and Gartner (1989) represent the minimum approach. They see entrepreneurship as the nexus of two components, i.e. the individual and the entrepreneurial process or project. The maximum approach considers entrepreneurship to be the combination of four components, i.e. the individual, the creating process, the organization and the environment (Gartner, 1985; 1990).

In what follows, we elucidate our position with regard to entrepreneurship as a nexus of multiple components. First, we clarify our view as far as the number of components is concerned. Afterwards, we turn to the content or essence of the various components.

Table 2. Entrepreneurship components.

Source	Components					
	Individual	*Process*	*Environment*	*Organization*	*Project*	*Opportunity*
Bruyat & Julien (2001)	An entrepreneur is an organized living body with its own existence that cannot be divided without being destroyed	-	-	-	The new value creating process and object	-
Bygrave & Hofer (1991)	The characteristics and functions of the individual entrepreneur	The characteristics of the entrepreneurial process (opportunity recognition, tasks in establishing a new organization)	-	-	-	-
Gartner (1985; 1990)	Differences of individual entrepreneurs with nonentrepreneurs (background, …)	Actions referring to the entrepreneurial function (opportunity recognition, …)	Push and pull forces coming from outside the organization	Characteristics of the organization created	-	-

Table 2. Entrepreneurship components (*continued*).

Source	**Components**					
	Individual	*Process*	*Environment*	*Organization*	*Project*	*Opportunity*
Gartner (1989)	An individual performing a series of actions that result in the creation of an organization	-	-	-	The organization being created	-
Shane & Venkataraman (2000)	Individuals who discover, evaluate and exploit opportunities	The discovery, evaluation and exploitation of opportunities	-	-	-	Opportunities to create future goods and services

From the perspective of obtaining a solid framework describing the domain of entrepreneurship, we believe for various reasons that the maximum approach is the most promising view. First, by considering the maximum number of dimensions described above the diversity of the entrepreneurship research field is respected. After all, the behavioral approach views entrepreneurship as a series of actions or behavior undertaken to enable the creation of the entrepreneurial project. This behavior (opportunity recognition, resource assembling, ...) can come in many diverse forms (Shane & Venkataraman, 2000), some of which may not be specified at this point in time. For a field still in its infancy (Bruyat & Julien, 2001; Ucbasaran et al., 2001) it is imperative to keep an open view on the diversity of entrepreneurial behavior (Sharma & Chrisman, 1999). The maximum approach fulfills this requirement since it is less likely to exclude as-yet-unspecified entrepreneurial behavioral forms. Excluding the components of the environment and the organization from a framework describing the entrepreneurship field (thus relying on the minimum approach) would imply an inexcusable loss of entrepreneurial diversity.

Second and following, although incorporating all four components in the entrepreneurship research field makes it more difficult to point out which project is entrepreneurial and which is not, we think this complexity actually supports the behavioral view of entrepreneurship. After all, trying to identify factors that can distinguish entrepreneurial from non-entrepreneurial projects could lead ending up sooner or later with the trait approach or a variation on that particular theme. Gartner (1989) has warned entrepreneurship researchers about the persistence of the trait approach and about the merging of behavior and trait issues in real life entrepreneurship research. Thus, the maximum approach avoids arbitrary decisions that delineate entrepreneurial from non-entrepreneurial projects.

Third, a condition that must be fulfilled in order to obtain a good description of the entrepreneurship field is that the definition should allow building theories and carrying out effective empirical research in order to enhance the understanding of the phenomenon (Bruyat & Julien, 2001). Following the social system framework developed by Van de Ven (1993) trying to map the social complexity of the entrepreneurial infrastructure (or resource provider) it becomes clear that the 'project' or 'opportunity' dimension (Gartner, 1985; Bygrave & Hofer, 1991; Shane & Venkataraman, 2000; Bruyat & Julien, 2001) is itself a nexus of multiple components, encompassing the environment and/or the organization. Working towards more complete understanding of the entrepreneurship phenomenon therefore requires that these components should not be a priori excluded from the description of the entrepreneurship domain. The mounting evidence that components such as the environment significantly influence entrepreneurship activities (Zahra, 1993b) illustrates this point.

Finally, the maximum approach is more likely to be acceptable to most researchers since most will find a place for the research topic they are interested in. By doing so, the maximum approach prevents researchers from speaking after one another, rather than to one another.

The framework

For the reasons described above, we prefer the maximum approach in developing a framework to describe the entrepreneurship research field. But the maximum approach we would like to put forward is slightly different form the approach suggested by Gartner (1985; 1990). As mentioned, Gartner's view encompasses four components: the individual, the creating process, the organization being created and the environment. Instead of looking upon entrepreneurship as the creation of an organization, we propose to see entrepreneurship as the process of creating new value. This new value creation could lead to a new organization, but does not necessarily has to do so. For instance, creating new business in an existing company by means of introducing a new product can also be labeled as new value creation. This broad view on new value creation is in line with Shane and Venkataraman's (2000) appeal to consider the variation in entrepreneurial opportunities that can be identified. Thus, our framework describing the entrepreneurship domain entails five components: the creator, the creating process, new value creation, the close environment and the remote environment. A graphical representation of this approach to entrepreneurship is depicted in Figure 1. In what follows, we discuss all five components.

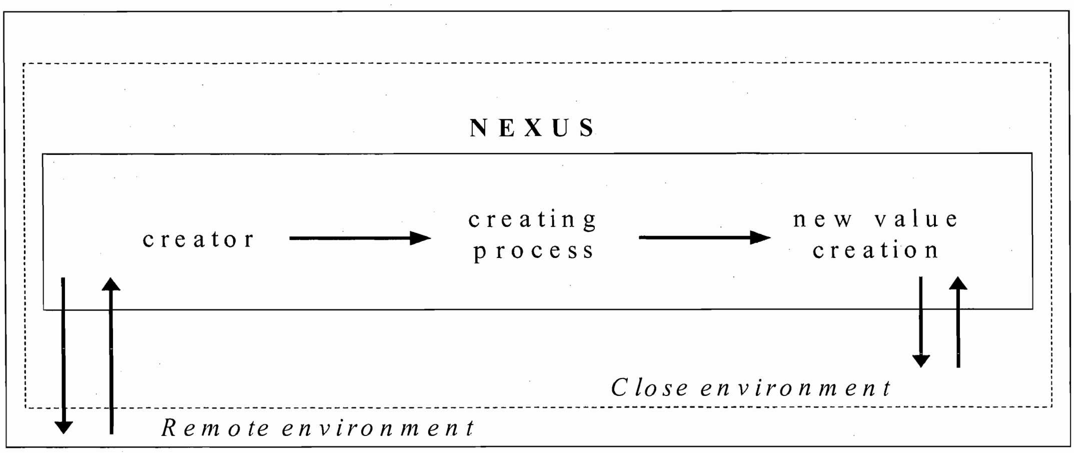

Figure 1. Entrepreneurship framework.

The creator. Creators appear in multiple shapes. First of all, a single individual can be the creator. This type of creator is recognized throughout literature, as illustrated in Table 2. Some authors however recognize only the individual entrepreneur as creator (Gartner, 1985). Studies have identified five types of individual entrepreneurs: nascent, novice, habitual, serial and portfolio entrepreneurs (Ucbasaran et al., 2001). Yet, entrepreneurship can also be undertaken by a set of people who go through the process either independently or collectively (Shane & Venkataraman, 2000). Moreover, the importance of entrepreneurial teams is increasingly recognized (Bruyat & Julien, 2001; Ucbasaran et al., 2001). Disregarding the often collective nature of entrepreneurship leads to the common bias of attributing entrepreneurial achievements to a particular individual entrepreneur, inspired at a particular moment by a stroke of genius or by fortune (Van de Ven, 1993). Additionally, entrepreneurship can grow from within existing organizations (Shane & Venkataraman, 2000). The existence of entrepreneurial teams and organizations has led us to use the label 'creator' instead of 'individual'.

The creating process. Several steps occur in the creating process (Gartner, 1985; Shane & Venkataraman, 2000; Ucbasaran et al., 2001). The process starts with the discovery and recognition of business opportunities and with information search. Whereas the recognition of opportunities is a subjective process, the opportunities themselves are objective phenomena (Shane & Venkataraman, 2000). Opportunity recognition seems to be a function of the joint characteristics of the opportunity and the recognizer. Individual elements playing a prominent role in the process are knowledge differences (different stocks of information), behavioral differences and cognitive differences (different mental schemas providing a framework for recognizing new information) (Shane & Venkataraman, 2000). The next step in the creation process is the decision to exploit the opportunities discovered, followed by the acquisition and accumulation of resources (Gartner, 1985; Shane & Venkataraman, 2000; Ucbasaran et al., 2001). Choosing the mode of exploitation (Shane & Venkataraman, 2000) and developing a business strategy (Ucbasaran et al., 2001) complete the creating process. Gartner (1985) further details the development of business strategy, listing behaviors such as marketing products and services, producing the product or service, building an organization and responding to government and society. In all its stages, the creating process is characterized by uncertainty (Jones & Butler, 1992).

New value creation. The notion of new value creation in entrepreneurship is not an easy one. Although we explicitly use the label 'new value creation' instead of innovation, many authors have intrinsically related entrepreneurship with innovation (Carrier, 1996; Covin & Miles, 1999; Miller, 1983; Schuler, 1986; Shane & Venkataraman, 2000; Stopford & Baden-Fuller, 1994; Zahra, 1993c). In their view, there is no entrepreneurship without innovation. In this respect, Shane and Venkataraman (2000) distinguish between entrepreneurial opportunities and profit opportunities in general because the latter do not require the discovery of new means-end relationships. Others have taken stand against this view. Authors like Gartner (1989), Aldrich and Martinez (2001) and Ucbasaran et al. (2001) recognize that entrepreneurship is equally possible without innovation, leading to 'innovators' on the one hand and 'reproducer organizations' on the other hand (Aldrich & Martinez, 2001).

Gartner (1989) issues a warning not to correlate entrepreneurship with innovation, however intuitively appealing this might be. In his view, correlating both constructs would lead to the almost unsolvable problem of identifying which firms in an industry are innovative and which are not, increasing the ambiguity in a field already confronted with a definitional dilemma.

The problem described above is likely to be a labeling problem. Researchers formulating innovation definitions are not always aware of the consequences of the 'newness' they propose. For instance, Covin and Miles (1999: p.49) define innovation as "the introduction of a new product, process, technology, system, technique, resource or capability to the firm or its markets". Although this definition is in no sense wrong, by mixing 'new to the market' and 'new to the firm', it might be too broad. Certainly if it is to be related to entrepreneurship, as the authors propose. We think that distinguishing innovations from inventions might solve this discussion. Zajac et al. (1991) suggest that an invention implies the development of a process, product or service that is completely new (for the organization, the market, ...). An innovation is then seen as referring to the adoption of any process, product or service previously foreign to the organization studied. Thus, an innovation could in fact be a completely new idea. But the label innovation would equally apply to introducing (old) ideas that are new for the organization, e.g. introducing an existing product into a new market without any modification to the product. Kanter (1985) summarizes both types of innovation by defining it as creating new combinations. Rothwell and Zegveld (1982) give an interesting overview of various types of 'new combinations'.

Using the labels 'invention' and 'innovation' as defined by Zajac et al. (1991) in a consistent way might solve the problem described above. Defined in this way, innovation would indeed be intrinsically linked with entrepreneurship, but invention would not. However, this does not mean that there are no combinations of invention and entrepreneurship. But we can propose that entrepreneurship does not automatically imply invention.

Our component of new value creation (NVC), as suggested by Bruyat and Julien (2001) refers to innovation as defined by Zajac et al. (1991). We prefer the NVC label because it is less likely to result in confusion between innovation and invention when confronted with the many different definitions of innovation existing in literature. Additionally, it stresses the fact that NVC is the result of a series of actions in order to adopt a process, product or service new to the organization. As such, NVC is approached from a behavioral point of view. The adoption – as opposed to the mere generation or development - of a process, product or service is seen as required (Damanpour, 1991). After all, NVC is intended to contribute to the performance of the adopting organization. Performance effects can only occur when the new ideas are actually used (adopted) in the organization (Damanpour, 1987).

Besides solving the discussion about the link between entrepreneurship and innovation, the approach suggested above has the benefit of consistency in level. This meaning that the newness dimension of NVC is considered on the same level of the 'creator-creating process-NVC' nexus. The concepts of NVC and innovation also stress that the 'creator-creating process-NVC' nexus is part of a bigger picture (cfr. infra). As indicated by Damanpour (1991), organizational innovation is subject to influences in different categories, including the external environment. Bruyat and Julien (2001) indicate that an exchange process establishing a price in a market, i.e. an external environment, shapes the value dimension of NVC. Kanter (1985) and Schuler (1986) also suggest the ideas of exchange and the 'bigger picture' in their summary of characteristics of new value creation. These characteristics are uncertainty, knowledge-intensity, competition with alternatives and boundary crossing.

The 'creator-creating process-NVC' nexus we have commented on thus far is embedded in its environment. Entrepreneurs do not operate in vacuums – they respond to their environments (Gartner, 1985). Obviously, entrepreneurship as a field of research should also include the environment of the 'creator-creating process-NVC' nexus. Environmental elements are for example the availability of supporting services, laws and regulations, transportation infrastructure and the availability of a skilled labor force. Two different views of the environment have been developed (Gartner, 1985). The environmental determinism or ecological approach looks at the environment as an external set of conditions to which the organization has to apply if it is to survive (Aldrich, 1979). In the strategic choice perspective the environment is seen as a reality created by organizations themselves through some strategy (Gartner, 1985). In entrepreneurship literature, both perspectives on the environment have been and still continue to be taken. Yet, Low and MacMillan's (1988) critique on the absolute lack of integration of both views is still valid. In most ecological and evolutionary studies, strategies are ignored or taken for granted, whereas studies focusing on strategies tend to ignore the existence of ecological pressures (Aldrich & Martinez, 2001). If we are to understand the entrepreneurial process both views have to be taken into account. For this reason we follow Harrison and Shirom (1999) and distinguish two types of environments: the close and the remote environment.

The close environment. As mentioned earlier, creators may come in many forms and the creating process requires several choices to be made (mode of exploitation, business strategy, ...). The preceding steps in the decision process connected to the 'creator-creating process-NVC' nexus create an environment for the subsequent parts of the decision process. In other words, the structure created constrains the further development of the project (Bruyat & Julien, 2001). Entrepreneurial background (family, experience, education, ...) for instance is considered to influence the choice for a certain type of firm (manufacturing, service, ...) (Gartner, 1985). And the type of firm chosen for may then affect the mode of exploitation, the resource acquisition, the development of the business strategy and so on. To summarize, the close environment includes all the conditions and forces that are directly related to the 'creator-creating process-NVC' nexus.

But as we already know, Gartner (1985) specifically studied the creating process of new organizations by individuals. The close environment from his point of view is a synonym for the organization being created. Yet, when we consider the 'creator-creating process-NVC' nexus from a broader perspective, other elements constituting the close environment appear. For instance, when we are dealing with a team or an existing organization setting up an entrepreneurial project, the close environment becomes more complex, including relationships within the team, organization structure, culture, procedures, ... So we can conclude that the close environment, seen as the inside set of conditions (originating from within the nexus) the entrepreneurial process has to respond to, is dynamic in its varying complexity. The initial degree of complexity varies with the type of the entrepreneurial project. And in the course of the entrepreneurial process the complexity is continuously increased since the close environment expands and evolves.

The remote environment. The entrepreneurial process also has to respond to and interact with a vast set of conditions originating from outside its nexus. This set of conditions is referred to as the remote or general environment. The remote environment includes forces, conditions and institutions having infrequent or long-term impacts on the 'creator-creating process-NVC' nexus and its close environment. In determining whether an environmental element is close or remote, our point of reference is the 'creator-creating process-NVC' nexus. Only a condition resulting from outside the nexus can belong to the remote environment. So, different entrepreneurial projects can have different close and remote environments. In this sense, the availability of venture capital can be an element of the remote environment for a single, individual entrepreneur. But in the case of an existing large corporation with an internal venture fund, the availability of venture capital is likely to be an close environmental characteristic.

To summarize, we have elaborated on a framework describing the research field of entrepreneurship from the behavioral point of view. This framework encompasses five components: the creator, the creating process, new value creation, the close environment and the remote environment. Thus, entrepreneurship is seen as a multidimensional construct, including a tight nexus incorporating the creator, the creating process and new value creation. This nexus is developed in close interaction with the close and the remote environment.

A complete behavioral model for the purpose of describing entrepreneurship of whatever nature (novel start-up, corporate entrepreneurship, ...) should include all five components in some degree.

After all, the maximum approach is, as mentioned, the most appropriate approach to develop a descriptive framework for the entrepreneurship domain.

However, this descriptive framework encompasses two components of a more contextual nature, falling outside the actual 'creator-creating process-NVC' nexus: the close and the remote environment. The graphical representation in Figure 1 illustrates this point by providing a gray background for the 'creator-creating process-NVC' nexus only. While the 'full' framework is necessary to describe or model the entrepreneurship phenomenon and research field, the isolated nexus might be more appropriate to work towards a definition of entrepreneurship shared by the research field. These three components (that can be distinguished but not separated from each other) form the true nexus or core of entrepreneurship considered from a behavioral or process point of view. This nexus is the actual object studied in the field of entrepreneurship (Bruyat & Julien, 2001). In studying this object, however, the environmental components cannot be disregarded. Thus, the two contextual factors are important to study, model or describe the practice of entrepreneurship in all its forms.

To conclude, entrepreneurship as an object of research refers to the 'creator-creating process-NVC' nexus whereas entrepreneurship as a field of research encompasses all five components. A clear differentiation between both might perhaps serve as a first step in solving the definitional dilemma surrounding entrepreneurship. As we recall, in this paper we have therefore elaborated on all five components since our objective was to describe the full entrepreneurship domain as a field of research.

Alternative classifications of the entrepreneurship field

The behavioral view of entrepreneurship with its five dimensions as outlined above is of course but one of several frameworks to describe the entrepreneurship research field. In mapping the entrepreneurship domain, it is therefore useful to explore and differentiate alternative classifications. Stevenson and Jarillo (1990) argue that the plethora of entrepreneurship studies can be divided in three main categories: what, why and how. In the first category of studies the researcher is mainly concerned with the results of the actions of the entrepreneur/creator. 'What happens when entrepreneurs act?' is the central research question. These researchers thus concentrate on the new value creation dimension, leaving aside the creator and the creating process per se. Economists, such as Schumpeter, Cantillon or Say, generally take this approach. The second strand emphasizes the creator dimension (background, values, motivations, ...). The causes of the entrepreneurial action ('why') constitute the primary interest of the researcher. If this strand of research concentrates on the individual entrepreneur, it can be considered as a synonym for the trait approach discussed earlier. Finally, how entrepreneurs act can become the center of research. In this case, the characteristics of entrepreneurial management and of the creating process are the center of attention.

Two of these three research categories ('what' and 'why') can be assembled under the label of 'content research', as opposed to process research. The content/process dichotomy originates from the strategic management literature and usually reflects the disciplinary orientation of the researcher (Bourgeois, 1980). This dichotomy is also useful for entrepreneurship research since the latter originates from the strategic management discipline (Hoy & Verser, 1994). The content approach in strategy literature focuses solely on the makeup of strategies actually implemented. Similarly, the content approach in entrepreneurship is limited to either the makeup of the creator, the creating process or the new value creation. Content research is therefore one-dimensional. For instance, studying individual entrepreneurs and their background tells us why these individuals have become entrepreneurs. Or still, novel start-ups or new entry explains what entrepreneurship consists of in term of new value creation (Stevenson & Jarillo, 1990).

On the other hand, the behavioral approach of entrepreneurship we suggested earlier can be labeled as 'process research'. Behavioral scientists usually focus on processes (Bourgeois, 1980). And in studying the entrepreneurship process ('how') all five dimensions must be taken into account in some degree in order to gain understanding of the phenomenon, as discussed earlier. The content/process dichotomy enables us to distinguish entrepreneurship as a behavioral approach from several related views. First, this dichotomy allows us to discern the trait approach from the behavioral view. Second, it differentiates the economic approach from the behavioral view on entrepreneurship. As mentioned, economists are mainly interested in the effects of entrepreneurial actions on the economic environment (Bruyat & Julien, 2001; Stevenson & Jarillo, 1990). Their goal is not to penetrate the black box or nexus of entrepreneurship. Similarly, the dichotomy allows us to distinguish the population ecology view from our approach. Population ecology focuses on the makeup of the environmental conditions and does not aim to penetrate the entrepreneurship nexus (Bruyat & Julien, 2001; Bygrave & Hofer, 1991).

The content/process dichotomy is however no 'one for all' solution. It does not help us in differentiating entrepreneurship from small business research. The field of small business shows a high degree of parallels with the entrepreneurship field. After all, it recognizes the crucial role of the owner-manager in understanding the functioning and performance outcomes of a small business. In other words, small business research also studies a nexus or black box, i.e. the nexus of the owner-manager, the management process and company performance. However, small business management research studies all companies that meet certain size criteria, regardless of their new value creation (Bruyat & Julien, 2001). Yet, in entrepreneurship research size does not matter and new value creation is a core element.

Advantages of our framework

As mentioned, our framework pertains to the behavioral view of entrepreneurship. The behavioral perspective has several distinct advantages. Covin and Slevin (1991) list three advantages of behavioral models of entrepreneurship. First, entrepreneurship is shaped by behavior or actions, not by attributes such as psychological characteristics or organizational culture. To build on Gartner (1989): it is by the dance that you can know the dancer while he is dancing. Behavior is therefore the central element in entrepreneurship. And this process view significantly contributes to our understanding of the entrepreneurship phenomenon. Second, behavior is by definition overt and demonstrable (Covin & Slevin, 1991). By measuring the behavioral manifestations of entrepreneurship we can reliably, verifiably and objectively measure the entrepreneurial level of individuals and firms. Third, a behavioral model of entrepreneurship is also appealing to practitioners since behavior is manageable. In this sense, the entrepreneurial process is open for intervention.

In addition to the general advantages of a behavioral view on entrepreneurship mentioned by Covin and Slevin (1991), our specific approach has the following strengths. First, it does not try to give an explicit definition of entrepreneurship, which would only add to the profound disagreement there already is on this topic. Instead, it aims at mapping the entrepreneurship field by describing its components. For reasons described earlier a maximum approach is hereby preferred. Second, it merges two constructs frequently introduced as separate concepts on the firm level, i.e. entrepreneurship and entrepreneurial orientation (EO). Although there are authors who use both constructs as synonyms (Knight, 1997), other researchers make a clear distinction between entrepreneurship and entrepreneurial orientation. Lumpkin and Dess (1996) for instance link entrepreneurship and entrepreneurial orientation to the content/process dichotomy explained earlier. In their view entrepreneurship refers to the content dimension (what kind of new value has been created: novel start-up, new business unit, ...) while entrepreneurial orientation is linked to the process view ('how'). In our behavioral approach, entrepreneurship itself is conceptualized from a process point of view. Our approach therefore eliminates this extra, futile conceptual disagreement in literature. A disagreement that is likely to be due to a labeling problem, i.e. labeling firm-level new value creation as entrepreneurship. Third, our approach enables us to see entrepreneurship as a reiterative process that does not end with the creation of a specific type of new value, as proposed by Cunningham and Lischeron (1991). So entrepreneurship does not stop when the organization has been created, as Gartner (1989) suggested. Instead, having finished one type of new value creation, it is possible to begin a new one. Yet, the specific features of the 'creator-creating process-new value creation' nexus and its close and remote environment can change, as mentioned earlier. Fourth, the five components we used in our approach should allow us to capture and reflect most (if not all) of the variability in all appearances of entrepreneurship. Thus, by studying all five components we should be able to distinguish all forms of entrepreneurship in an accurate way, such as novel start-ups, corporate ventures and corporate renewal activities. In the subsequent paragraph we will use these five components in order to clarify the corporate entrepreneurship construct by describing its domain.

3. Corporate entrepreneurship

Corporate entrepreneurship is a widely accepted label for the strand in entrepreneurship theory aiming at bewildering existing companies with an entrepreneurial spirit. In its early stages, it was seen as a means to re-energize large companies. Stopford and Baden-Fuller (1990) use the term 'rejuvenation'. As McGinnis and Verney (1987: p. 19) state: the purpose of corporate entrepreneurship is "to harness the entrepreneurship spirit of the small organization and blend it into the culture of the larger, more established firm". Yet, later on, it has been recognized that small organizations too can benefit from bringing corporate entrepreneurship into practice (Carrier, 1996). Corporate entrepreneurship or intrapreneurship is often seen as a school within entrepreneurship theory (Cunningham & Lischeron, 1991). However, as the previous sections have made clear, there is no generally accepted definition of entrepreneurship. The same definitional gap thus also burdens the corporate entrepreneurship construct. As explained earlier, Hoy and Verser (1994) propose two distinct ways to bridge a definitional gap: (1) operationalizing the terms used in empirical studies and (2) defining a term by describing its domain. The remainder of this paper will explore both approaches in reverse order.

3.1. The corporate entrepreneurship domain

3.1.1. Defining corporate entrepreneurship

Despite the fact that there remains a considerable degree of definitional ambiguity about the corporate entrepreneurship construct, entrepreneurship and corporate entrepreneurship literature seem to agree on the differentiation between the nature of independent entrepreneurship and corporate entrepreneurship. Independent entrepreneurship is seen as the process whereby a single individual or a group of individuals create a new organization, acting independently of any association with an existing organization (Sharma & Chrisman, 1999). Corporate entrepreneurship is then considered as entrepreneurial activities being established in association with one or more existing organizations. However, the process of corporate entrepreneurship remains less well understood and why corporate entrepreneurship works remains a mystery (Burgelman, 1983; Covin & Miles, 1999; Hornsby et al., 2002). Additionally, the differences in terminology used to describe those particular entrepreneurial activities have created confusion, and still continue to do so. Throughout the years, researchers have used a variety of terms to describe the entrepreneurial efforts associated with existing organizations: corporate entrepreneurship (Carrier, 1996; Covin & Miles, 1999; Covin & Slevin, 1991; Dess et al., 1999; Hornsby et al, 2002; Jennings & Lumpkin, 1989; Stopford & Baden-Fuller, 1994; Ucbasaran et al., 2001; Zahra, 1991; Zahra, 1993b; Zahra, 1995; Zahra et al., 2000), intrapreneurship (Antoncic & Hisrich, 2001; Carrier, 1996; Hostager et al., 1998; Kuratko et al., 1990; Pinchot, 1985), corporate venturing (MacMillan et al., 1986; Miles & Covin, 2002; Von Hippel, 1977), and internal corporate entrepreneurship (Jones & Butler, 1992). Table 3 contains a list of exemplary definitions used in literature for each of these terms. We refer to Sharma and Chrisman (1999) for a more detailed overview of definitions for these related terms.

Table 3 can teach us three lessons with regard to corporate entrepreneurship definitions. First, it illustrates that some researchers use different terms to label the same phenomenon. Second, it shows that different authors define the same term differently. Finally, it demonstrates that sometimes the same author defines the terms differently in subsequent articles. All of this clearly reveals that the corporate entrepreneurship construct is still evolving, not only through contributions of various researchers, but also within the work of individual researchers. So, at this point in time a generally accepted definition of corporate entrepreneurship is lacking (Carrier, 1996; Zahra, 1991).

Table 3. Corporate entrepreneurship: terms and definitions.

Source	Definition	Synonym used
	CORPORATE ENTREPRENEURSHIP	
Carrier (1996)	A process of creating new business within established firms to improve organizational profitability and enhance a company's competitive position (p.6)	-
Covin & Miles (1999)	The presence of innovation plus the presence of the objective of rejuvenating or purposefully redefining organizations, markets, or industries in order to create or sustain competitive superiority (p.50)	-
Covin & Slevin (1991)	Extending the firm's domain of competence and corresponding opportunity set through internally generated new resource combinations (p.7)	-
Dess et al. (1999)	Corporate entrepreneurship may be viewed as consisting of two types of phenomena and processes: (1) the birth of new businesses within existing organizations, whether through internal innovation or joint ventures/alliances and (2) the transformation of organizations through strategic renewal, i.e. the creation of new wealth through the combination of resources (p.85)	-
Hornsby et al. (2002)	Corporate entrepreneurship centers on re-energizing and enhancing the ability of a firm to acquire innovative skills and capabilities (p.255)	-
Jennings & Lumpkin (1989)	The extent to which new products and/or new markets are developed (p.489)	-

Source	Definition	Synonym used
Ucbasaran et al. (2001)	A process of organizational renewal associated with two distinct but related dimensions: (1) creating new businesses through markets developments or by undertaking product, process, technological and administrative innovations (2) redefinition of the business concept, reorganization, and the introduction of system-wide changes for innovation (p.63)	Corporate venturing
Zahra (1991)	The process of creating new business within established firms to improve organizational profitability and enhance a company' competitive position or the strategic renewal of existing business (p. 260-261)	-
Zahra (1993b)	A process of organizational renewal that has two distinct but related dimensions: (1) innovation and venturing and (2) strategic renewal (p.321)	-
Zahra (1995)	The sum of a company's innovation, venturing and renewal efforts (p.226)	-
Zahra et al. (2000)	The sum of a company's venturing and innovation activities (p.947)	-
	INTRAPRENEURSHIP	
Antoncic & Hisrich (2001)	A process that goes on inside an existing firm, regardless of its size, and leads not only to new business ventures but also to other innovative activities and orientations such as development of new products, services, technologies, administrative techniques, strategies and competitive postures (p.498)	-

Source	Definition	Synonym used
Carrier (1996)	The introduction and implementation of a significant innovation for the firm by one or more employees working within an established organization (p.7)	-
Hostager et al. (1998)	Individuals and groups working within the corporation to: (1) identify ideas for new products or services (2) turn these ideas into profitable products or services (p.11-12)	-
Kuratko et al. (1990)	Entrepreneurship inside of the corporation (p.50)	-
Pinchot (1985)	Entrepreneurship inside large corporations (p.xv)	-
	CORPORATE VENTURING	
Stopford & Baden-Fuller (1994)	The creation of new businesses within an existing organization (p.521)	intrapreneurship
Von Hippel (1977)	An activity which seeks to generate new businesses for the corporation in which it resides through the establishment of external or internal corporate ventures (p.163)	-
	INTERNAL CORPORATE ENTREPRENEURSHIP	
Jones & Butler (1992)	Internal corporate entrepreneurship refers to entrepreneurial behavior within one firm, or the level of entrepreneurial behavior (p.734)	-
	ENTREPRENEURIAL ORIENTATION	
Lumpkin & Dess (1996)	The processes, practices and decision making activities that lead to new entry (p.136)	Firm-level entrepreneurship

3.1.2. Corporate entrepreneurship dimensions

In an attempt to gain more understanding of the corporate entrepreneurship phenomenon we can try to describe its domain by mapping its dimensions. Yet, in literature the term 'dimension' itself has been understood in diverse ways. For instance, Antoncic and Hisrich (2001) see corporate entrepreneurship dimensions as a synonym for forms, instances or even characteristics of corporate entrepreneurship: new business venturing, innovativeness, self-renewal and proactiveness. It is clear that these categories cannot always be clearly differentiated from each other, as for example self-renewal can stimulate innovativeness and new business venturing can be undertaken proactively. Corporate entrepreneurship dimensions are indeed related, but they are also distinct (Zahra, 1993a). Thus, a clear differentiation of corporate entrepreneurship dimensions is necessary. The robustness of such a classification lacking a clear differentiation between dimensions remains doubtful and is not likely to contribute to our understanding of the corporate entrepreneurship phenomenon. Therefore, the dimensions we will discuss must - each separately - look at corporate entrepreneurship from a completely different angle.

Several corporate entrepreneurship authors have proposed diverse corporate entrepreneurship dimensions, be it explicitly or through their definitions or distinction of forms of corporate entrepreneurship. In what follows, we will list and explain these dimensions. Table 4 contains a number of sources and the corporate entrepreneurship dimension they propose.

Table 4. Corporate entrepreneurship dimensions.

Dimension	Source
Content	Antoncic & Hisrich (2001), Covin & Miles (1999), Dess et al. (1999), Hornsby et al. (1999), Hornsby et al. (2002), Kuratko et al. (1990), Merrifield (1993), Rothwell & Zegveld (1982), Shortell & Zajac (1988), Stopford & Baden-Fuller (1994), Ucbasaran et al. (2001), Zahra (1993a), Zahra (1995), Zahra & Covin (1995), Zahra et al. (1999a), Zahra et al. (2000)
Formality	Zahra (1991), Zahra (1993a), Zahra et al. (1999a), Zahra et al. (1999b)
Locus	Miles & Covin (2002), Zahra (1991), Zahra et al. (1999a)
Within/outside	Rothwell & Zegveld (1982), Zahra (1993a)
Direct/indirect	Miles & Covin (2002)
Domestic/international	Zahra (1993a)

Table 4 reveals that ***content*** is the most widely used dimension to create corporate entrepreneurship categories. The content dimension refers to what new value creation the corporate entrepreneurship process is actually about. Based on this dimension, literature distinguishes several forms or types of corporate entrepreneurship. Dess et al. (1999) for example distinguish two types of corporate entrepreneurship processes: the birth of new business within existing organizations and organizational transformation through strategic renewal. Stopford and Baden-Fuller (1994) see three types of corporate entrepreneurship: corporate venturing, renewal activities and Schumpeterian innovation or frame braking change altering the rules of competition in industry. Covin & Miles (1999) discern four types of corporate entrepreneurship: sustained regeneration, organizational rejuvenation, strategic renewal and domain redefinition. Zahra et al. (1999a) limit the different corporate entrepreneurship types to two: innovation and venturing. In order to obtain mutually exclusive categories within the content dimension, we will follow Dess et al. (1999), distinguishing two categories: *corporate venturing* (birth of new business out of existing organizations) and *strategic renewal*. Strategic renewal refers to the transformation of organizations through renewal of the key ideas on which they are built (Guth & Ginsberg, 1990).

Formality is a second corporate entrepreneurship dimension. Corporate entrepreneurship activities can be *formal* or *informal* (Burgelman & Sayles, 1986; Zahra, 1991). The formality dimension is also known as the *source* dimension of corporate entrepreneurship (Zahra et al., 1999a). Formal corporate entrepreneurship activities are developed in pursuit of the organization's established mission and goals (Zahra et al., 1999b). Informal corporate entrepreneurship activities are initiated by individuals and groups in pursuit of particular areas of interest (Zahra, 1991; 1993a). These informal efforts occur autonomously and can result from individual creativity or pursuit of self-interest. Some of these efforts eventually receive the organization's formal recognition. The formality dimension corresponds directly to Burgelman's (1983) distinction between autonomous and formal strategic actions.

The third dimension focuses on the ***locus*** of corporate entrepreneurship. It separates *internal* from *external* entrepreneurial activities. Internal corporate entrepreneurship activities are conducted strictly within an organization's boundaries (Zahra et al., 1999a). External entrepreneurial activities transcend these boundaries, e.g. when one organization joins another in order to set up a joint venture. Thus, the locus of corporate entrepreneurship refers to the locus of the corporate entrepreneurship creator. It does not refer to the locus of the created new value (venture, …), although some authors have made this proposition (Miles & Covin, 2002; Sharma & Chrisman, 1999; Zahra, 1991).

A fourth dimension, very close to the locus dimension, is the ***residence*** (*within/outside*) dimension. This dimension points at the locus of the created new value (venture, …). Corporate entrepreneurship activities *within* the organization often cover product, process or administrative innovations at various levels of the company (Burgelman & Sayles, 1986; Zahra, 1991). But also a newly created venture can reside within the creating, official organization. An internal venture directly controlled by the corporation serves as an example (Miles & Covin, 2002). Alternatively, it can be constructed as a stand-alone venture or a spin-off (Rothwell & Zegveld, 1982; Zahra, 1993a). In the latter case it stands *outside* the creating, official organization. The outside ventures can be further distinguished by means of the ***domestic/international*** dimension. The venture is domestic if the stand-alone venture is situated in the same country as the parenting organization.

Investment intermediation is a sixth and final variable of relevance in the context of corporate entrepreneurship, particularly in the case of corporate venturing (Miles & Covin, 2002). On this variable a corporate entrepreneurship typology can be built, leading to *direct* and *indirect* corporate entrepreneurship activities. In the case of indirect investment, the creating organization invests in an independent financial investment mechanism functioning as a financial intermediary between the organization and the venture being created. This independent financial investment mechanism operates outside the organization's operating or strategic budgets (Miles & Covin, 2002). In the case of direct investment the investment mechanism operates inside the new value creating organization.

In order to avoid confusion between the locus (locus of the corporate entrepreneurship creator) and the residence (locus of the created new value) dimensions, Figure 2 gives an example of each combination of the two dimensions concerned to illustrate the interaction between both.

		RESIDENCE	
		within	*outside*
LOCUS	*internal*	A new product developed and marketed within the organization	A spin-off company set up by a university researcher (who does not give his/her university job)
	external	A joint venture between a windmill company and a supermarket chain developed within the windmill company	A joint venture between a windmill company and a supermarket chain developed outside the supermarket chain

Figure 2. Residence and locus dimensions combined.

The six corporate entrepreneurship dimensions described above show us that corporate entrepreneurship can appear in many diverse forms. The complex appearance of the construct is thus recognized again. Nevertheless, we are convinced that the corporate entrepreneurship construct can be clarified if the dimensions can be grouped in some way, according to their relatedness. Indeed, some authors recognize that the corporate entrepreneurship dimensions are distinct, but related, capturing different aspects of firm level entrepreneurship (Zahra, 1993a). However, a comprehensive framework structuring the related corporate entrepreneurship dimensions is lacking. Yet, such a framework has the potential to contribute to our understanding of the process of the corporate entrepreneurship phenomenon. In what follows we will link the six corporate entrepreneurship dimensions (Table 4) with the three core components of the behavioral view on entrepreneurship as described earlier. As we recall, the entrepreneurship nexus encompasses three components: creator, creating process and new value creation. By linking these dimensions, we aim to clarify the corporate entrepreneurship construct from a process view. The framework we want to achieve in this way should help us to describe the corporate entrepreneurship domain in a subsequent step.

Table 5. Corporate entrepreneurship dimensions and entrepreneurship components.

	Creator (CR)	**Creating process (CP)**	**New value creation (NVC)**
Content			X
Formality	X	X	
Locus	X	X	
Residence		X	X
Domestic/international		X	X
Investment intermediation		X	

Table 5 establishes the link between the core entrepreneurial process components (creator, creating process and new value creation) and the corporate entrepreneurship dimensions. It reveals (by marking with 'X') which corporate entrepreneurship dimensions can have an effect (major or minor) on each entrepreneurial process component. Once more, it demonstrates the complex appearance of corporate entrepreneurship. Table 5 shows that formality and locus have an impact on the creator and the creating process components but not on the type of new value being created. Residence, domestic/international and investment intermediation on the other hand do not affect the creator component but have an impact on the creating process and the new value creation. A more detailed description of the various links is provided in a subsequent section of the paper.

Table 5 also shows that there is one corporate entrepreneurship dimension that is linked to only one process component, i.e. the content dimension of corporate entrepreneurship linked to new value creation. As mentioned, we distinguish two content categories of corporate entrepreneurship: corporate venturing and strategic renewal. Linking the entrepreneurial process and the remaining five corporate entrepreneurship dimensions for each content type separately could perhaps contribute to our understanding of the corporate entrepreneurship phenomenon. The results of this exercise (similar to the one of Table 5) are summarized in Table 6.

Several conclusions can be drawn from Table 6. First, the table shows that corporate venturing and strategic renewal are indeed distinct but related (Zahra, 1993a). Both types of corporate entrepreneurship have common dimensions, namely locus and formality. Yet, corporate venturing also entails corporate entrepreneurship dimensions that are not shared with strategic renewal. For instance, the within/outside dimension is applicable to corporate venturing, as ventures can be created both inside and outside the organization. Strategic renewal, however, cannot be created outside the organization. So, the within/outside dimension (with both its instances) does not play a role as far as strategic renewal is concerned.

Table 6. Corporate entrepreneurship dimensions and entrepreneurship components for corporate venturing and strategic renewal.

Entrepreneurship	**Corporate venturing**			**Strategic renewal**		
Dimension	**CR**	**CP**	**NVC**	**CR**	**CP**	**NVC**
Formality	X	***X***		X	***X***	
Locus	***X***	X		***X***	X	
Residence		X	***X***			
Domestic/international		X	***X***			
Investment intermediation		***X***				

Second, Table 6 reveals that corporate venturing entails dimensions that are not shared with strategic renewal, as already mentioned. The reverse does not hold, however. So it is clear that on the whole more corporate entrepreneurship dimensions apply to corporate venturing than to strategic renewal. These differences in applicable dimensions confirm Zahra's (1993a) appeal to recognize the different requirements of the various types of entrepreneurial activities. As corporate venturing and strategic renewal are subject to different (whether in number or in nature) corporate entrepreneurship dimensions, treating them as requiring the same managerial skills and company resources would be misleading. Specifying the link between the type of corporate entrepreneurship activity and the appropriate dimensions as accurately and detailed as possible is therefore useful in setting the stage for researching corporate entrepreneurship.

Third, Table 6 shows that - as expected - the nexus idea of entrepreneurship is equally applicable to corporate entrepreneurship. After all, several corporate entrepreneurship dimensions play a role on multiple entrepreneurial process dimensions. The locus dimension of corporate entrepreneurship for instance is linked to the creator and the creating process components of the entrepreneurial process. This strengthens the idea that also in the case of corporate entrepreneurship (both corporate venturing and strategic renewal) the three entrepreneurial process components form a nexus. They can be distinguished from each other, but not separated.

3.1.3. Describing corporate entrepreneurship

Table 6 enables us to describe corporate venturing and strategic renewal from a process point of view in a concise way. After all, this is our main intention in this section since we aim at describing the corporate entrepreneurship domain by mapping its dimensions.

The impetus for corporate venturing can be both formal and informal. Corporate venturing is formal when the venture is developed in pursuit of the established organizational mission and goals. The venture creator can be located internally or externally. Internal venture creation can be handled without external partners. In this case the venture creation is a purely internal affair. External venture creation entails cooperation with an external partner, thus transcending the organizational boundaries. This could be labeled as corporate joint venturing (Shortell & Zajac, 1988). The newly created venture can reside within the organization, or outside. An outside venture can be domestic or international. The latter refers to ventures not only located outside the creating organization, but also outside the national borders of the country in which the creating organization resides. Setting up a new venture can in some cases incorporate investment intermediation. If such an independent financial vessel is present, then corporate entrepreneurship is labeled as indirect.

The description above requires an important remark. Although the main impact of a corporate entrepreneurship dimension may be conceptually situated at a particular entrepreneurial process dimension, it may bring with it collateral effects on other process dimensions. For instance, the within/outside dimension is a dimension that essentially refers to the location of the newly created venture, as mentioned earlier. So it is conceptually linked to the new value creation dimension. But it is clear that the within/outside dimension also affects the creating process (acquisition of resources, ...), the internal environment and the external environment. Another example is the direct/indirect dimension, which is in fact mainly situated at the creating process dimension (resource gathering). But again, the direct/indirect dimension will also leave its mark on the internal and the external environment. Taking into account the nexus idea of corporate entrepreneurship, such 'side effects' of dimensions are not surprising. In Table 6, the corporate entrepreneurship dimensions having their main impact on a specific entrepreneurial process dimension are indicated in bold and italic.

Just as with corporate venturing, the impetus for strategic renewal can be both formal and informal. Locus also plays a role in the case of strategic renewal. After all, corporate renewal can be internally generated, or in cooperation with partners, e.g. by forming strategic alliances (Merrifield, 1993). As with corporate venturing, the formality and locus dimensions (conceptually linked to the creator dimension) equally affect other entrepreneurial process components, such as the creating process and the internal and external environment.

To conclude, by providing a link between the entrepreneurial process components and the corporate entrepreneurship dimensions, the classification of Table 6 allows us to describe the corporate entrepreneurship domain quite accurately. Once more, we have followed the maximum or broad approach to map the research field. While no single classification can be all encompassing, the maximum approach ensures us of incorporating as much corporate entrepreneurship forms as possible. In aiming to describe the corporate entrepreneurship field as accurately as possible, we think that this is necessary. This classification recognizes that corporate entrepreneurship is not a straightforward construct but may take several forms.

The classification of Table 6 can further be used to gain a better understanding of previous corporate entrepreneurship research. Instead of focusing on the label used by the authors (which, as we recall, may cause confusion), the classification can help to dissect the definition proposed by the authors, thus stimulating better understanding of what is being researched and of the results obtained. It also paves the way for corporate entrepreneurship research aiming at searching for the particular needs (in terms of organizational support and managerial skills) of specific types or forms of corporate entrepreneurship.

As we recall, bridging the definitional gap in the case of corporate entrepreneurship can be attempted in two ways (Hoy & Verser, 1994): (1) operationalizing the terms used in empirical studies and (2) defining a term by describing its domain. After having described the domain in the paragraph above, the last section in this paper will focus on how the construct has been operationalized in previous empirical studies.

3.2. *Corporate entrepreneurship measures*

Corporate entrepreneurship has been operationalized in empirical research in many diverse ways. Undoubtedly, the diversity in measures has contributed in some degree to the definitional gap and the labeling problem discussed earlier. For the purpose of illustrating this diversity, Table 7 gives a non-exhaustive overview of variables used to model corporate entrepreneurship.

All variables of Table 7 refer to practices or circumstances that can in some degree be controlled by the organization. In other words, measures for the remote environment are not included in this table. This does not mean that these variables are not important in the context of corporate entrepreneurship. In fact, research has revealed that they can have important direct or moderating effects on corporate entrepreneurship (Lumpkin & Dess, 2001; Zahra, 1993b). However, in view of our aim to describe the corporate entrepreneurship phenomenon by means of its measures, it seems more appropriate to concentrate on those measures that are intrinsically linked to the internal functioning and 'being' of the organization. Moreover, the remote environmental variables are not uniquely associated with corporate entrepreneurship as they equally apply to independent entrepreneurship. Thus, four dimensions are considered: the creator, the creating process, the new value creation and the close environment.

Table 7. Corporate entrepreneurship variables.

Variable	Source
Innovativeness/innovation	Antoncic & Hisrich (2001); Knight (1997); Lumpkin & Dess (2001); Zajac et al. (1991)
Risk taking	Hornsby et al. (2002); Kuratko et al. (1990); Lumpkin & Dess (2001); Zahra & Covin (1995);
Proactiveness	Antoncic & Hisrich (2001); Knight (1997); Lumpkin & Dess (2001); Zahra & Covin (1995)
Competitive aggressiveness	Lumpkin & Dess (2001)
Prior venture experience	Zajac et al. (1991)
Slack resources; resource availability	Zajac et al. (1991); Hornsby et al. (2002); Kuratko et al. (1990)
Autonomy	Zajac et al. (1991)
Rewards and sanctions	Hornsby et al. (2002); Jennings & Lumpkin (1989); Kuratko et al. (1990); Sykes (1986)
Centralization of decision making	Jennings & Lumpkin (1989); Sykes (1986)
Specialization	Jennings & Lumpkin (1989)
Organizational support	Antoncic & Hisrich (2001); Hornsby et al. (2002); Kuratko et al. (1990)
Time availability	Hornsby et al. (2002); Kuratko et al. (1990)
Organizational structure	Hornsby et al. (2002); Kuratko et al. (1990)
Organizational communication	Antoncic & Hisrich (2001); Zahra (1991)
Environmental scanning	Antoncic & Hisrich (2001); Zahra (1991)
Organizational values/culture	Zahra (1991)
Self-renewal	Antoncic & Hisrich (2001); Zahra (1993b)
New business venturing	Antoncic & Hisrich (2001); Zahra (1993b); Zahra (1995); Zahra & Covin (1995); Zahra et al. (2000)
Ownership	Zahra et al. (2000)

Although Table 7 does not list all variables associated in literature with corporate entrepreneurship, it shows that corporate entrepreneurship has been operationalized using many diverse variables. The domain thus covered is very broad. Yet, in our opinion it is possible to classify the various variables and measures (including those not listed in Table 7) by means of a two by two matrix. This should help us uncovering the structure of the way in which corporate entrepreneurship has been operationalized and researched until now and stimulate our understanding of the phenomenon. The two by two matrix contains two dimensions, each composed of two categories.

The first dimension refers to *what* has been operationalized. Table 7 helps us to distinguish two categories. Some variables (innovativation, self-renewal, new business venturing) are linked to the type of new value being created through corporate entrepreneurship. The other variables belong to the creating process (resource availability, environmental scanning, proactiveness, ...) or to the close environment of the organization (organizational support, rewards, specialization, communication, ...). The creating process and the close environment are very closely linked to each other. For instance, centralization of decision making (an element of the internal environment) affects the creating process, which encompasses opportunity recognition, resource acquisition and allocation etc. The creating process is likely to be different in a centralized environment compared to a decentralized environment. Moreover, the type of resources acquired and the way in which they have been allocated is also likely to influence the way in which decisions are made. In view of the tight link between the creating process and the close environment, we propose treating them as one. So, the 'what' dimension of the operationalizing variables falls apart in two categories: new value creation (NVC) and creating process/close environment (CP/CEV). This also demonstrates that the creator component of corporate entrepreneurship has not often been researched.

The second dimension of the two by two matrix classifying the corporate entrepreneurship measures refers to *how* the variables have been operationalized. Some authors have used factual questions or data to operationalize the variables. For instance, Zahra (1995) has measured venturing by means of the number of new businesses generated in the course of a particular year. Other authors have turned to opinion questions using items that have to be scored on a Likert-type scale. For example, Zahra (1993b) asked the respondents to indicate the degree of emphasis (5-point scale) in their organization on several items referring to new business creating, e.g. "entering new businesses by offering new lines and products". Thus, the second dimension encompasses two categories: variables aiming at facts versus variables referring to opinions.

The complete two by two matrix is depicted in Figure 3. In each cell, we have listed authors who have operationalized corporate entrepreneurship in a certain way. For example, Hornsby et al. (2002) have used opinion questions to model the close environment for corporate entrepreneurship. So, Hornsby et al. (2002) are listed in the cell "CP/CEV-opinion".

Figure 3 reveals that most studies use opinion questions. Furthermore, it shows that the close environment for corporate entrepreneurship has received slightly more attention in literature than the type of new value being created. Additionally, the figure illustrates that some authors have used both types of measures to study a particular corporate entrepreneurship element (e.g. Zahra (1991) used both factual and opinion questions to measure new value creation). Even so, it demonstrates that other authors have studied new value creation as well as the close environment, sometimes with different types of measures (e.g. Zahra et al. (2000): factual measures for the internal environment and opinion measures for new value creation). By classifying research and the measures it used, the proposed classification seems to be able to clarify the operationalization of corporate entrepreneurship in a proficient way. Through this clarification, one can gain understanding of what has been researched (under what label) and how this was done.

"HOW"

"WHAT"	facts	opinion
NVC	Jennings & Lumpkin (1989) Zahra (1991) Zahra (1995)	Antoncic & Hisrich (2001) Zahra (1991) Zahra (1993b) Zahra & Covin (1995) Zahra et al. (2000)
CP/CEV	Sykes (1986) Zahra et al. (2000) Zajac et al. (1991)	Antoncic & Hisrich (2001) Hornsby et al. (1999) Hornsby et al. (2002) Jennings & Lumpkin (1989) Knight (1997) Kuratko et al. (1990) Lumpkin & Dess (2001) Zahra (1991)

Figure 3. Two by two classification matrix.

4. Conclusion

The literature on corporate entrepreneurship stresses its importance for rejuvenating and revitalizing existing organizations. Yet, the enthusiasm for the practice seems to have outgrown the solidness of the theoretical framework and the availability of empirically grounded, sound prescriptions. Research has only allowed deriving a large body of very general and often contradictory principles for corporate entrepreneurship (Dess et al., 1999; Sykes, 1986). A major source for these conflicting results can be found in the absence of a sound and coherent theoretical framework defining and delineating corporate entrepreneurship. Corporate entrepreneurship is generally considered to be ill defined (Stopford & Baden-Fuller, 1994). The absence of such a framework makes it difficult to study the phenomenon in a proficient way and threatens the field's legitimacy, being unable to differentiate it from other, related schools.

It is clear that the need for a solid theoretical framework is pressing. This paper aimed at creating such a basis by means of a clarification of the concept of corporate entrepreneurship and its measures. This framework has been built in three subsequent steps. First, we have explored the entrepreneurship domain in order to create a platform for the study of corporate entrepreneurship. Second, we have described the corporate entrepreneurship field by mapping its dimensions and linking it to the entrepreneurial process model. Third, we have investigated how corporate entrepreneurship has been researched in the past. This study of the past operationalizations of corporate entrepreneurship provides us with a second means to bridge the definitional gap characterizing the corporate entrepreneurship domain. It has led us to a classification of the measures used in previous studies.

The combination of the theoretical description of the construct by means of its dimensions and the empirical research approach classifying the variables provides us with a clear theoretical base. Several advantages characterize this theoretical framework. First, it helps to set the boundaries for the field of entrepreneurship and corporate entrepreneurship. By doing this, it enables the differentiation of the corporate entrepreneurship domain from other, related schools. And, it thus helps to preserve the field's legitimacy. Second, the proposed classification allows consistency in the use of labels for constructs related to entrepreneurship and corporate entrepreneurship. It supports researchers in dissecting past research (whatever the label used) and in setting up clearly labeled new research. Third, the classification offered in this paper provides the corporate entrepreneurship field with a blueprint of the "common ground". It thus enables linking past research attempts to each other and, doing so, it stimulates researchers talking to one another instead of after one another. Fourth, the theoretical framework forms an excellent base for future empirical research aiming to forward our understanding of the entrepreneurship and corporate entrepreneurship phenomenon. Finally, the presence of a solid theoretical framework creates challenging research possibilities to provide those responsible for management, advice and policy with empirically grounded, unambiguous guidelines to enhance the practice of entrepreneurship and corporate entrepreneurship.

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